

#### 4.—A SECOND AUSTRALITE OBSERVED TO FALL IN WESTERN AUSTRALIA.

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In October, 1934, I described the details of the observed fall of an australite in 1933 at Lake Grace, the first recorded observation of its kind. I now desire to record the entirely independent evidence of a second fall observed at Cottesloe, near Perth, in 1935.

Early in 1935 (the exact date is forgotten) Mr. F. Hanson was working on a gravel tennis court in Kathleen Street, North Cottesloe, when he heard, at about 10 or 11 a.m., a thud on the surface of the court. He observed a thin cloud of dust rising about 30 feet away, and found evidence of some object having penetrated the surface there. Digging on the spot immediately, he found beneath 3 inches of laterite gravel (used to surface the court) and a further 12 inches of loose sandy soil, a rounded stone weighing about 5 ounces, which was still too hot to hold in the hand. This stone he kept and showed to friends at various times, but not till early in 1938 did anyone see it who was able to suggest its probable nature and origin. This person urged the finder to see me, and as a result I have been able to collect what evidence there is regarding the fall, and to secure the specimen for the Western Australian Museum. As Mr. Hanson had never heard of an australite before, still less known that there was a record of an observed fall at Lake Grace, his evidence is entirely independent and unbiassed. The site of this fall is 180 miles in a direct line W.N.W. of Lake Grace.

The object itself is typical in every respect. (See Plate.) It is composed of homogenous black glass, only translucent in thin splinters. Its specific gravity is 2.42. The original weight of the body was about 156 grammes, but Mr. Hanson hit it with a hammer to see what it was composed of, and in doing so split thin flakes off two sides, leaving its present weight 154 grammes. The form is that of a lens with maximum and minimum diameters 57 and 55 mm., and maximum thickness 39 mm. A distinct equatorial ridge surrounds the greater part of the circumference at 24 mm. below the summit, the top half of the lens being as usual more sharply convex than the lower.

There is no sign of weathering or sand abrasion on the surface, which is covered with minute wrinkles and has a soft sub-vitreous lustre. The smooth outlines of the body are modified by many typical channels and conchoidal flake scars, but even on the surfaces of this secondary sculpturing, the finely wrinkled surface mostly persists. It would appear as if the chilled surface had spontaneously flaked, and subsequently been reheated to a point of slight fluidity to a very shallow depth. The channels or grooves, which average 1 mm. in width, are either straight, curved or completely annular. In the latter case they surround a small central projection, thus forming the "hofchen" of Suess. The grooves are marked by low cross ridges, typical of conchoidal fracture.

It is evident that the object seen to fall at Cottesloe is a typical australite in composition, texture and form.

By courtesy of Mr. J. B. Knight, an American who in 1934 was carrying out some mineralogical research in the British Museum of Natural History, I am able to present with the photographs of the Cottesloe australite, for which I am indebted to the Government Printer and Mr. B. L. Southern, one of the australite seen to fall at Lake Grace in 1933.

Ref. 1935. *Journ. Roy. Soc. W.A.*, 21, p. 37-8.



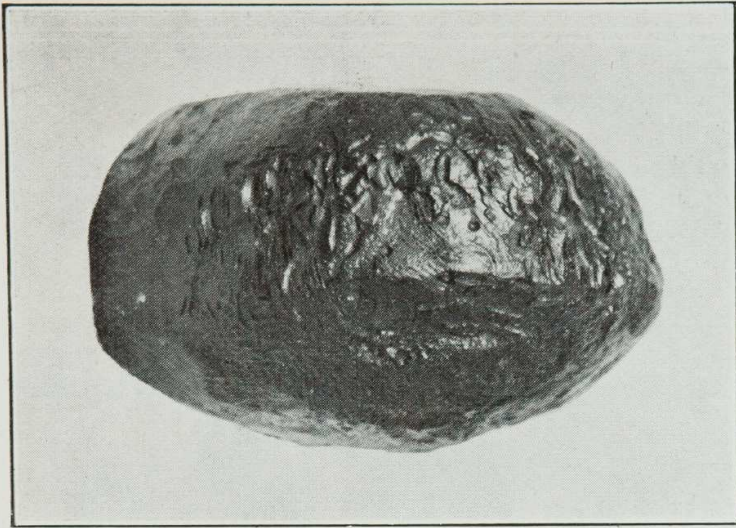


Fig. 1.

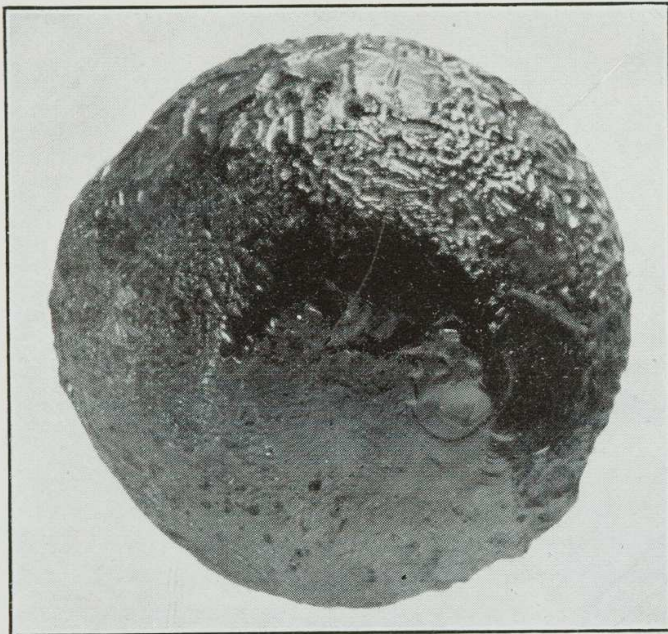


Fig. 2.

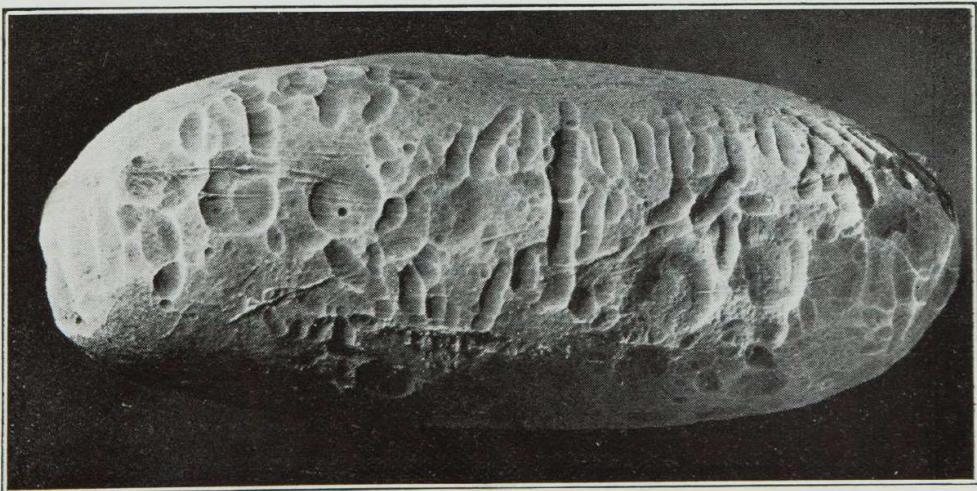


Fig. 3.

Figs. 1 & 2. Australite seen to fall at Cottesloe, 1935. Natural size.  
Photos., Government Printer and B. L. Southern.  
Fig. 3. Australite seen to fall at Lake Grace, 1933. Twice natural size.  
Photo., J. B. Knight.